

and confidently. Good technique is rapidly achieved, making the difficult patient much easier. The artery can almost always be punctured at the 12 o'clock position, above the bifurcation, below the inferior epigastric, and on the first attempt. The presence of plaque and calcification can be visualized, and if a clean site cannot be located alternative entry sites can be proactively selected. An expanding hematoma during an emergency procedure can significantly ruin the day (or night). Many of us have seen patients who have died as a result of a serious vascular complication.

No "state of the art" paper on vascular closure should ignore the importance of vascular access. It seems that the cardiology community might benefit from the lessons learned in anesthesia. In a 1999 editorial about ultrasound venous access, D.H.T. Scott quoted the philosopher Erasmus: "In the country of the blind, the one-eyed man is king" (2).

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#### Reply

We read with interest the letter of Drs. Phillips and Ver Lee concerning our recent paper (1). First, we agree with the importance of preventing vascular complications and would argue that routine femoral angiography performed before full anticoagulation for percutaneous coronary intervention may help prevent subsequent complications (2). Owing to our focus on vascular closure device development over the past decade as well as space limitations, we did not address techniques (fluoroscopy, ultrasound, anterior wall puncture) that may improve initial femoral arterial access. Second, the authors' assertion that optimal arterial access should help reduce rates of vascular complications independent of use of vascular closure devices is a widely held belief that we share.

However, the hypothesis that technology-guided access technique results in lower rates of vascular complications has been neither tested nor proven, in spite of its resonance with common sense.

The statement that use of needle-guided vascular ultrasound imaging provides "the most accurate method of sheath insertion" sounds appealing, but it is not supported by an evidence base evaluating this strategy. In fact, we were able to find only 1 study in a Medline search of "ultrasound-guided femoral artery access." In a randomized trial of 112 diagnostic angiography patients undergoing either conventional or ultrasound-guided femoral arterial access, the ultrasound-guided approach reduced the time to successful access only in the subgroup of patients with weak pulses and obesity. Unfortunately, routine use of ultrasound-guided access was associated with an increased time to successful femoral arterial access for the majority of the patients. Most importantly, vascular complication rates were the same regardless of the access strategy (3). Therefore, while we applaud all efforts to enhance the safety of procedures requiring femoral artery access, we believe that routine use of femoral arterial ultrasound is not justified in the absence of a clear clinical benefit, and we await future trials to generate such evidence.

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